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# INDUSTRIAL AND CONSTRUCTION STATISTICS

## Report of the Task Force on Industrial and Construction Statistics

## Note by the Secretary-General

The Secretary-General has the honour to transmit herewith, to the Statistical Commission, the report of the Task Force on Industrial and Construction Statistics (Convenor: Organisation for Economic Cooperation and Development (OECD)). The report has been prepared in response to the request of the Statistical Commission at its special session (New York, 11-15 April 1994). 1/

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* E/CN.3/1995/1.

1/ See Official Records of the Economic and Social Council, 1994, Supplement No. 9 (E/1994/29), para. 24 (d).

Annex

# REPORT OF THE TASK FORCE ON INDUSTRIAL AND CONSTRUCTION STATISTICS

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## INTRODUCTION

1. The membership of the Task Force on Industrial and Construction Statistics consists of several international bodies: the Organization for Economic Cooperation and Development (OECD) (Convenor); the Statistical Division of the United Nations Secretariat (UNSTAT); the United Nations Industrial Development Organization (UNIDO); and the Statistical Office of the European Communities (EUROSTAT). Three countries provide expert support to the Task Force: Canada, Italy and the United States of America.

2. Three meetings of the Task Force have been held since the special session of the Statistical Commission: one in Paris in June 1994; one in Rome in September 1994; and one in Paris in January 1995.

## I. ISSUES SUBMITTED FOR REVIEW BY THE STATISTICAL COMMISSION

3. The Task Force's findings confirm those of its earlier report to the Commission (E/CN.3/1994/6) that so far the institution of the International Standard Industrial Classification of All Economic Activities (ISIC), Rev.3, by States Members of the United Nations has resulted in polarization rather than harmonization with respect to industrial statistics world wide.

4. The Task Force has found that for many developing countries, the introduction of ISIC, Rev.3, is contingent on the taking of an economic census or the carrying out of a large-scale survey of economic activity. However, many countries have neither the resources nor the know-how to do either.

5. The Task Force has found that a number of developing countries, particularly those that are in a more advanced stage of industrialization, are planning to introduce ISIC, Rev.3, in conjunction with a forthcoming economic census. Such countries complain, however, that they have been given no guidance on the steps they should take in order to ensure international comparability.

6. The Task Force has found that the introduction of ISIC, Rev.3, is not a once-and-for-all event but rather a drawn-out process that in some cases may extend for as long as five years or more. During the time taken to convert to ISIC, Rev.3, reporting of industry statistics to international organizations will be far less consistent than it has been before.

7. The Task Force has found that countries (and for that matter international organizations) have no clear-cut policy on measures that should be taken to protect the continuity of their time-series during the period of transition and in particular no guidance on how to maintain the continuity of their short-term indicators of change in industrial activity.

8. The Task Force considers that the member countries of the European Union, other countries of the European Economic Area and some remaining members of OECD are largely safe from having to experience these effects. However, even for them the process of conversion will be a drawn-out one, and at the end there

will be less comparability between the developed and the developing world than there was prior to the introduction of ISIC, Rev.3.

9. While the Task Force approves of and strongly endorses the efforts that were made to establish the strongest of links between ISIC, Rev.3, and the General Industrial Classification of Economic Activities within the European Communities (NACE), Rev.1, it nevertheless expresses its concern regarding the ability of UNSTAT to maintain such links, considering that sooner or later EUROSTAT will be forced to change the structure of NACE, Rev.1.

10. The Task Force considers that while the introduction of a more sophisticated classification than ISIC, Rev.2, was imposed by changes in technology and in industrial organization world wide, the circumstances surrounding the introduction of ISIC, Rev.3, were not carefully evaluated nor was due attention paid to the difficulties that the majority of countries would experience in trying to implement the new classification.

## II. OBJECTIVES AND MODUS OPERANDI OF THE TASK FORCE, INCLUDING STRUCTURE AND A SUMMARY OF ACTIVITIES

11. The Task Force was established at the request of the participants at the fifteenth session of the Working Group on International Statistical Programmes and Coordination of the Statistical Commission. Its objectives (see appendix) can be summarized under two headings: non-duplication of country reporting of industrial statistics to various international bodies and reporting back to the Commission on its findings regarding the implementation of ISIC, Rev.3, which was adopted by the Commission as the international standard. At the special session of the Commission held in April 1994, the Task Force reported that its first objective had been largely attained but that it was still in the process of investigating the circumstances affecting the attainment of the second. It also reported to the Commission on the findings resulting from a first survey of country practices and intentions regarding the introduction of the Classification and alerted participants about problems surrounding the introduction of ISIC, Rev.3. At the same time, the Commission was requested to authorize the Task Force to continue its activities for another year and to conduct a second survey of country practices.

12. On this occasion, the Task Force finds itself in the position of being able to review the findings resulting from its second survey and to offer, for discussion by the Commission, a number of alternative options.

13. For purposes of carrying out its survey, the Task Force divided the target population into a number of country groups. These groups included the OECD countries (surveyed though collaboration between OECD and EUROSTAT); the partners in transition (through cooperation among OECD, EUROSTAT and Italy); and some selected developing countries (through UNIDO AND UNSTAT) (Canada). Not all countries answered the survey although those that were contacted directly, through a visit or by telephone, provided very extensive replies. The form that guided the interviews was based on a draft submitted by the Statistical Office of Italy (ISTAT) expert working in support of the Task Force. By and large, countries found that they could answer certain parts of the questionnaire

unaided, but individual circumstances differed so much that other parts could be answered only through a guided interview.

## III. MAJOR FINDINGS OF THE SURVEY

14. The findings of the survey led the Task Force to classify countries under four categories:

(a) Those countries that are committed to the conversion - now or in the foreseeable future - of their current classification either to ISIC, Rev.3, or to NACE.1. They include all members of the European Union, the members of the European Economic Area and a number of the remaining members of OECD. The members of the European Economic Area are being given active guidance by EUROSTAT on a number of principles and conventions designed to promote consistency in the conversion to NACE.1;

(b) Those countries that, while committed to conversion to ISIC, Rev.3, and while having secured the necessary means to conduct a benchmark conversion (through an economic census, large-scale survey of economic activity, or conversion of administrative registers), have not benefited so far from any guidance designed to promote consistency or to institute principles and conventions similar to those of ISIC, Rev.3. These countries include some in Latin America and Asia;

(c) Those countries that have no means either now or in the foreseeable future to undertake a large scale conversion to ISIC, Rev.3. Such countries are committed to continuing with their national classifications in their present form or after an overhaul. They include the smaller Central and South American countries; a large number of African countries; and some countries in the Middle and Far East. A number of them have realized that the conversion to ISIC, Rev.3, unlike previous exercises, cannot be carried out by mechanical conversion and linking;

(d) Countries such as the United States and Canada with current plans to convert their national classifications to a common classification that is only partially compatible with ISIC, Rev.3;

(e) Those countries that have not yet replied or else replied by a statement of intention that is not based on any direct experience of the difficulties of converting from one classification of economic activities to a very different one based on different kinds of reporting units and on a different industrial organization. These countries include a number of Central and eastern European countries and a number of successor States of the former Union of Soviet Socialist Republics (USSR) that are not making the switch from ISIC, Rev.2, but are moving from a completely different classification system.

15. The Task Force is convinced that promoting harmonization of classifications is worthwhile for the following reasons:

(a) A common classification allows more reliable comparisons of how policies affect the economic performance of individual industries at a fairly

detailed level. Industries with different trade and technology characteristics (for example, motor vehicles and aircraft) should be identified separately and the definition of these industries should be consistent across countries;

(b) A common classification makes it possible to benchmark performance. In addition to an evaluation of the effect of industrial policies, a common classification system allows policy analysts to identify leading and lagging sectors when they compare a nation's industrial performance with that of other countries.

16. Nevertheless, it should be noted that promoting harmonization of improved classifications is bound to produce discontinuity in historical series.

## IV. OPTIONS REGARDING THE IMPLEMENTATION OF THE INTERNATIONAL STANDARD INDUSTRIAL CLASSIFICATION OF ALL ECONOMIC ACTIVITIES (ISIC), REV.3 (TABLED FOR DISCUSSION BY THE COMMISSION)

17. In accordance with the above-mentioned line of reasoning, the Task Force submits the following options to the Commission, pursuant to its wish to promote greater harmony in the adoption and use of economic classifications. The options are listed in decreasing order of cost:

(a) Assisting those countries in group (c) (see para. 14 above) that do not have the necessary means to take a census or large-scale survey of economic activity. On the very restricted assumption that not more than 30 countries would have the necessary infrastructure to take on such an undertaking, that the undertaking itself would be limited to the organized sector of the economy (in other words, it would exclude the informal sector), that only classificatory information would be sought, and that the coverage would not go beyond the traditional industrial, transportation and distributive sectors, it is projected that an effort requiring a half million dollars on average per country or something of the order of 15 million dollars might have to be disbursed over a period of time (but this option must be supplemented by option (b) given below);

(b) Constituting:

(i) A group of dedicated full-time experts, presumably based in each of the regional commissions and coordinated by a full-time expert based in UNSTAT, charged with the responsibility of promoting common approaches, principles and conventions with respect to the transition from national classifications (or earlier versions of ISIC) to ISIC, Rev.3;

(ii) A data bank of common problems and their solution; referring countries with more complex queries to a network of experts, and undertaking short-term missions of assistance to countries in the process of carrying out a census along the lines described above. The costs of deploying such a force should be added to option (a) although (b) can exist on its own if it is decided not to assist countries that require resources in order to undertake a census or large-scale survey;

(c) Creating a hot line based in UNSTAT, designed to not so much promote common principles and conventions as simply reply to queries regarding inclusions within and exclusions from ISIC, Rev.3. In the case of both options (b) and (c), the key instrument to promote conversion would be the trilateral concordance completed earlier this year by EUROSTAT, the United States Bureau of the Census and Statistics Canada, or rather, that part of it that shows for each four-digit category of ISIC, Rev.3, the activities or the Harmonized Commodity Description and Coding System products it includes. This option would probably cost the equivalent of one person year particularly if it were combined with the requirement of starting to prepare material for an eventual updating of ISIC;

(d) Distributing to all countries concerned a sufficient number of copies of the trilateral concordance (or of that part of it that is strictly speaking applicable) in either its paper or electronic version, and in addition the other materials that have been developed so far by UNSTAT (material on how to convert from ISIC, Rev.2, to Rev.3 and on how to convert from ISIC, Rev.3, to Rev.2; the Introduction to ISIC; the alphabetical listing that accompanied ISIC, Rev.2), as well as relevant classifications and lists developed by EUROSTAT (Classification of Products by Activity (CPA), PRODuction COMmunautaire (PRODCOM), and so on). Such an option would be by far the least costly and the least burdensome for the United Nations Secretariat but it would of course be less effective.

18. However, intermediate options may be envisaged particularly if consortia are created to finance some of the more costly approaches (for example, a consortium made up of UNIDO, UNSTAT, EUROSTAT and those countries that provide bilateral assistance in the field of industrial statistics).

19. Any one of these approaches except the very last depends on certain conditions being met. For example, there is no point in instituting (b) or (c) if there is no provision for training all the experts concerned and ensuring that the same questions asked at different times by different countries get approximately the same answer. It might not be worthwhile administering the training if UNSTAT is in no position to finance at least one meeting of experts for which the composition and venue could be discussed and subsequently determined. The cost of such a meeting should in fact be added to all the options except the least costly one ((d)).

## V. REDUCING DUPLICATION

20. In the light of the findings resulting from its surveys, the Task Force discussed the dissemination plans adopted by the various bodies. The following were the guiding considerations:

(a) Granted that the data-collection work carried out by international organizations has not been duplicated, this does not by itself promote coherence, particularly as international organizations have hitherto chosen which vintage of ISIC they wished their members to report in. The current situation is not coherent in several respects and risks worsening. The measures discussed in the framework of the Task Force are related to the objectives pursued by each of the organizations;

(b) For EUROSTAT, the objectives are to produce industrial statistics that can be compared among all members of the European Economic Area and among Western, Central and eastern European countries;

(c) For OECD, the objective is to compare European structures and growth rates with their counterparts in North America, Japan and Oceania;

(d) For UNSTAT and UNIDO, the objective is to compare industrial performance and structural changes between countries, particularly between developed and developing countries.

21. Accordingly, EUROSTAT will ensure comparability within its area of competence in terms of NACE.1 as it has been instructed to do in any case.

22. OECD for the next two or so years will publish its data both structural and conjunctural in terms of ISIC, Rev.2, for all countries including those that have already converted to ISIC, Rev.3 (or NACE.1). Those countries that have converted to ISIC, Rev.3, will be asked to provide data in both classifications until such time as nearly all countries are in a position to provide data in ISIC, Rev.3. Afterwards, in order to limit the burden on countries, OECD will request permission to convert back to ISIC, Rev.2, when necessary, it being understood that a conversion from Rev.3 to Rev.2 is feasible, whereas the reverse is not - at least from the point of view of an international secretariat.

23. UNSTAT and UNIDO will continue, for the foreseeable future, to disseminate data in Rev.2, it being understood that the overwhelming majority of their membership is bound to continue reporting in Rev.2 or in earlier vintages.

24. Finally, OECD and UNIDO have already started a joint programme of cooperation as regards the collection and dissemination of industrial statistics, based on a joint questionnaire.

## VI. FUTURE OF THE TASK FORCE

25. The Task Force has now reached a turning-point in its work. It is up to the Commission to decide whether it wishes to request further work and if so for what purpose. For example, the Task Force can assist the Commission in better understanding the uses of internationally comparable industrial statistics, if this is deemed useful. Indeed, the Task Force has requested that OECD develop an experimental "Matrix of International Industrial Data Use" in which the cells show the degree to which each variable in industrial statistics is used by different types of governmental and international bodies, for different policy issue areas. The Commission might wish to ask that all members of the Task Force conduct a similar study with the consolidation to be reported to the Commission in two years' time.

26. The Commission may also consider the following items:

(a) Broadening the scope of Task Force activities to include construction

At the special session of the Commission, it was agreed that the scope of the Task Force was to be extended to statistics on goods, which include what has been traditionally classified as construction. While discussing this matter the Task Force found that:

(a) The sources of construction statistics are very different from those that are commonly adopted for manufacturing;

(b) Those international organizations that engage in the collection of statistics on construction do so within the context of such collection's being one of many economic activities for the measurement of which they have recommended a particular approach;

(c) The countries that assist the work of the Task Force collect and compile a variety of such statistics ranging from those necessary to estimate gross fixed capital formation to those used as social indicators of people's living conditions;

(d) It was not clear to any of the members of the Task Force how to approach the matter of what had been asked of the Task Force and that it would result in unproductive second guessing if it attempted to define its own research agenda.

27. For the aforementioned reason, the Task Force, if requested to do so by the Commission, will proceed if it is given specific questions to which it can find a response and if the timetable suggested is commensurate with its means and expertise. If the Commission wishes to obtain a fundamental report on construction statistics, the correct approach would be to call for an expert meeting and a consultant's report after which the Task Force could be charged with follow-up and monitoring. This is in line with the discussion on task forces and expert groups held at the special session of the Commission in April 1994.

(b) Continuing to improve comparability of industrial statistics

28. The Task Force considers that it has not yet achieved a balance between the convenience of converting to ISIC, Rev.3, for structural statistics and that of converting to ISIC, Rev.3, for short-term conjunctural statistics. Moreover, it has proceeded with its inquiry on the adoption of ISIC, Rev.3, as if there were no problem regarding the use and the harmonization of statistical units. If these matters are judged to be important, the Statistical Commission might wish to entertain the following suggestions:

(a) That the highest priority for conversion to ISIC, Rev.3, should be placed on conducting a structural survey or census and that only then should the matter of conversion of short-term statistics be tackled; and that over the next two years, UNSTAT with the help of volunteer countries should draft operational guidelines designed to link past time-series expressed in ISIC, Rev.2, with new

short-term series expressed in ISIC, Rev.3, that in the short term this work should be focused on converting industrial statistics in ISIC, Rev.3/NACE.1 into ISIC, Rev.2/NACE.70, and that the Task Force should monitor the practicalities of such guidelines which will cover conversion in both directions;

(b) That the Task Force should conduct a small-scale survey designed to ascertain the variation in definition of statistical units to be classified by ISIC; that it should compare current usage with what is recommended in the Introduction to ISIC, Rev.3; 1/ and that it should propose to the Commission ways and means to produce a supplement to the Introduction and also suggest the manner in which current practice could be further harmonized.

## VII. POINTS FOR DISCUSSION

29. The Statistical Commission may wish to:

(a) Consider options suggested for implementation of ISIC, Rev.3;

(b) Review and comment on possible avenues of future work of the Task Force.

## Notes

1/ United Nations publication, Sales No. E.90.XVII.11, part one.

## Appendix

### TERMS OF REFERENCE

1. The work of the Task Force takes place in the context of these general assumptions:

(a) When dealing with issues of data collection, the word "industry" is to be construed narrowly, namely, as denoting mining, manufacturing and public utilities. However, it should be construed broadly when discussing the implementation of the third revision of the International Standard Industrial Classification of All Economic Activities (ISIC, Rev.3);

(b) The Task Force has not addressed what is denoted by the word "construction" in the current phase of its work. The Working Group may reassign that responsibility or wish to assign it later, within a future mandate of the Task Force.

2. The Task Force affirms that assessing the degree to which ISIC, Rev.3, has been implemented - not the further revision of ISIC - is within its mandate. It notes that the lack of conversion keys from ISIC, Rev.2, to ISIC, Rev.3, is a major impediment to that task. Intercountry comparisons have become increasingly difficult and the widespread adoption of a truly international classification would be the most effective remedy.

3. The Task Force has two overriding goals:

(a) To review and recommend ways of improving the international comparability of industrial statistics;

(b) To agree on whatever measures are required to reduce duplication in, and streamline and better coordinate the collection, compilation and dissemination of, industrial statistics.

4. The Task Force adopts an additional agenda item, entitled "Systematization of knowledge about the users and uses of industrial statistics, with special emphasis on the policy issues that industrial statistics are designed to illuminate."

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